



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/923,323  | 08/08/2001  | Jung-Wan Ko          | 1293.1059-CIPD2     | 3345             |
| 21171   | 7590        | 07/30/2004           | EXAMINER            |                  |
| STAAS & HALSEY LLP<br>SUITE 700<br>1201 NEW YORK AVENUE, N.W.<br>WASHINGTON, DC 20005 |             |                      | TRAN, THAI Q        |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2616                | 19               |

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/923,323

Applicant(s)

KO ET AL.

Examiner

Polin Chieu

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-22 and 25-31 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/263,816.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 18.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 5/11/04 have been fully considered but they are not persuasive. The applicant argues that Moriyama et al and the examiner's assertions do not show a video decoder that decodes the catalog information and additional information to generate a restored image. The examiner agrees that Moriyama et al does not disclose that the text information is provided to the decoders 88, 90, and 93 (remarks, pg. 12). However the examiner suggested that it is well known in the art to provide catalog data (i.e. song title, album name, artist, etc.) for display (e.g. in a karaoke device or the like). Since the text information contains the catalog data it would have been obvious to send the text information to the decoders to generate a restored image (note: the display of text can be considered to be an image). The Applicant argues that Moriyama et al does not disclose that the data is used to search for the selected titles to be reproduced is already recorded in the VTS or the video manager. The Applicant's arguments suggest that the text information entered by the user has been interpreted as the catalog playback information. Figures 20-22 show that the user is able to perform a text search for songs. Figure 10 includes pointers associated with the text, which are considered to be catalog playback information.
2. Applicant's arguments with respect to claims 9 and 14-15 have been considered but are moot in view of the new ground(s) of rejection.

3. The indicated allowability of claims 1-8, 11-13,16-23, and 25-29 is withdrawn in view of the amendments to the claims and newly discovered reference(s) to Fukuda et al. Rejections based on the newly cited reference(s) follow.

***Claim Objections***

4. Claim 15 and 31 are objected to because of the following informalities: In claim 15, "the editing system" does not have antecedent basis. In claim 31, "the catalog information catalog information" should be changed to "catalog information". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-6, 8, 11, 14, 29, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukuda et al (5,953,290).

Regarding claims 1, 4, and 11, Fukuda et al discloses a storage medium which includes audio data (124, fig. 1) stored in an audio area with catalog playback information (col. 6, lines 46-58) and a catalog information related to the audio data and stored in another area other than the audio area, wherein the another area comprises a catalog management (CMG) region having management information on the catalog

information (134, fig. 1), and a catalog title set (CTS) in which at least one title catalog including the catalog information related to each item of audio data is recorded (135, fig. 1); a video decoder that decodes the catalog information and additional information to generate a restored image (col. 6, lines 59-65); a controller to control the decoding unit so as to simultaneously decoded the audio data to be played back and the catalog information corresponding to the audio data to be played back according to the catalog playback information (col. 6, lines 46-58); and an optical pickup that reads the audio data and the catalog information (802, fig. 8). While Fukuda et al does not explicitly discloses an audio decoder, Fukuda et al discloses that the audio data can be recorded in a digital format (col. 4, lines 37-52, e.g. MPEG audio). Data coded using MPEG audio requires an audio decoder to reproduce the audio data.

Regarding claim 3, Fukuda et al discloses that the controller distinguishes whether the catalog playback information exists in the storage medium by defining a region of the storage medium predetermined by a physical address designated as a space for storing the catalog playback information (150-151, fig. 1).

Regarding claim 5, Fukuda et al discloses that the controller reads the catalog information in a predetermined sequence (col. 5, line 65 – col. 6, line 13).

Regarding claim 6, Fukuda et al discloses that the catalog information is defined to be within a predetermined size (col. 7, lines 51-67).

Regarding claim 8, Fukuda et al discloses that the restored image is a still picture (logo or graphic information can be considered to be a still picture) for background

display, and the additional information is a sub-picture for transferring characters (col. 6, lines 59-65).

Regarding claim 14, Fukuda et al discloses a storage medium having catalog information stored in a catalog area (123, fig. 1) and which is related to DVD-audio (col. 4, lines 37-52) stored in a audio area (124) other than the catalog area and which includes catalog playback information (col. 6, lines 46-58), wherein the catalog information corresponds to each of the audio data (fig. 1); an optical pickup that reads the storage medium and the corresponding catalog information (802, fig. 8); and a processor that reproduces the catalog information according to the catalog playback information (825).

Regarding claim 29, Fukuda et al discloses a playback unit to perform a playback operation (fig. 8) on a storage medium which includes audio data (124, fig. 1) stored in an audio area with catalog playback information (col. 6, lines 46-58) and a catalog information related to the audio data and stored in another area other than the audio area, wherein the another area comprises a catalog management (CMG) region having management information on the catalog information (134, fig. 1), and a catalog title set (CTS) in which at least one title catalog including the catalog information related to each item of audio data is recorded (135, fig. 1), the playback unit to reproduce the audio data and the catalog information according to the catalog playback information (col. 6, lines 46-58).

Regarding claim 31, Fukuda et al discloses that the processor reproduces the DVD-audio data corresponding to the catalog information being reproduced (col. 6, lines

46-58); and the catalog information being reproduced are in a title set and the DVD audio data being reproduced is in another title set other than the title set (124 and 135, fig. 1).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9, 15-22, 25-27, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda et al (5,953,290) in view of Katayama (5,902,115).

Regarding claims 9 and 15, Fukuda et al discloses a storage medium which includes audio data (124, fig. 1) stored in an audio area with catalog playback information (col. 6, lines 46-58) and a catalog information related to the audio data and stored in another area other than the audio area, wherein the catalog information corresponds to each of the audio data (123); a video decoder (817, fig. 8) which decodes catalog information and additional information to generate a restored image (col. 6, lines 59-65); and a controller (825, fig. 8) which controls playback of the catalog information according to the catalog playback information (col. 6, lines 46-58). While Fukuda et al does not explicitly disclose an audio decoder, Fukuda et al discloses that the audio data can be recorded in a digital format (col. 4, lines 37-52, e.g. MPEG audio). Data coded using MPEG audio requires an audio decoder to reproduce the audio data.

However, Fukuda et al does not disclose that the catalog information is decoded according to a standard DVD-video specification.

Katayama teaches a video decoder decoding text information (or catalog information) according to a standard DVD-video specification (fig. 17 and 64); storing DVD-video; and reproducing the DVD-video according to the system.

It would have been highly desirable to have the catalog information decoded according to a standard DVD-video specification so that a standard DVD player can reproduce the data, thereby eliminating the need for a specialized Karaoke player. Further, the audio data is stored according to a DVD-audio specification (col. 4, lines 37-52); therefore, it would have been obvious to store the video data according to the DVD-video specification.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have catalog data decode according to a DVD-video specification in the device of Fukuda et al.

Regarding claim 16, Fukuda et al discloses audio data (124, fig. 1) and catalog playback information (col. 6, lines 46-58) to be in an audio area and catalog information related to the audio data to be in another area other than the audio area(123), wherein the catalog information comprises catalog data having information corresponding to distinct items of the audio data (fig. 1), and the catalog playback information includes information on which one of the catalog data is to be reproduced when the corresponding items of the audio data are reproduced (col. 6, lines 46-58); an optical pickup (802, fig. 8), wherein the another area comprises a catalog management region



having management information on the catalog information (134, fig. 1), and a catalog title set in which at least one title catalog including the catalog information related to each item of the audio data is recorded (135). However, Fukuda et al does not disclose an encoding unit; and that the optical pickup records the audio data, catalog playback information, and the catalog data.

Katayama teaches an encoding unit (206-208, fig. 66); and an optical pickup for recording (fig. 69). It would have been obvious to have the encoding unit and the optical pickup record data according to the format discussed previously.

It would have been highly desirable to have an encoding unit and an optical pickup for recording so that audio and catalog data can be recorded in addition to being reproduced.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have an encoding unit and an optical pickup for recording in the device of Fukuda et al.

Regarding claim 17, Fukuda et al discloses that the controller defines a region of the storage medium predetermined by a physical address designated as a space for storing the catalog playback information (150-151, fig. 1). The optical pickup for recording was discussed in the art rejection of claim 16. Please see the art rejection of claim 16.

Regarding claim 18, Fukuda et al discloses data representing an image which is still picture relating to the audio data, and additional information which represents a sub-picture for transferring characters (col. 6, lines 59-65). The encoding unit and the

optical pickup for recording were discussed in the art rejection of claim 16. Please see the art rejection of claim 16.

The limitations of claim 19 were discussed in the art rejection of claims 9 and 15. Please refer to the art rejection of claims 9 and 15.

Regarding claim 20, Fukuda et al discloses catalog data in an image information region of a volume space of the storage medium, and records the audio data in the audio region of the storage medium (123 and 124, fig. 1). The optical pickup for recording was discussed in the art rejection of claim 16. Please see the art rejection of claim 16.

Regarding claim 21, Fukuda et al discloses catalog information in an image title set of the image information region (123, fig. 1), the catalog playback information in an audio management region of the audio region (150) and distinct items of the audio data in the respective audio title sets of the audio region (124). The optical pickup for recording was discussed in the art rejection of claim 16. Please see the art rejection of claim 16.

Regarding claim 22, Fukuda et al discloses that the catalog information is divided into distinct title catalog information corresponding to respective ones of the distinct items of the audio data (135), and the distinct title catalog information are in respective program chains of the image title set (135). The optical pickup for recording was discussed in the art rejection of claim 16. Please see the art rejection of claim 16.

Regarding claim 25, Fukuda et al discloses catalog information in an image title set of an image information region (135), and catalog playback information in a

Art Unit: 2615

predetermined information region of an audio file and distinct items of the audio data in respective audio title sets of the audio region of the storage medium (125). The optical pickup for recording was discussed in the art rejection of claim 16. Please see the art rejection of claim 16.

Regarding claim 26, Fukuda et al discloses catalog information is divided in distinct title catalogs corresponding to respective ones of distinct items of the audio data (135), and the distinct title catalogs are in respective program chains of an image title set on the storage medium (135). The optical pickup for recording was discussed in the art rejection of claim 16. Please see the art rejection of claim 16.

Regarding claim 27, Fukuda et al discloses a decoding unit (discussed in the art rejection of claim 1) that decodes the encoded audio data and the encoded catalog data read from the storage medium; herein the optical pickup reads the encoded audio data and the catalog data (col. 6, lines 46-58).

Regarding claim 30, Fukuda et al discloses that the catalog information is in a title set (135) and the audio data is in another title set other than the title set (124).

9. Claims 2, 7, and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda et al in view of Moriyama et al (5,889,746).

Regarding claims 2, 7, and 12, Fukuda et al does not disclose that the controller stores the catalog information of the audio data which is to be played back prior to playing back the audio data, wherein the storage unit stores the catalog information, and a plurality of title catalogs including the one title catalog and which forms the

catalog information, wherein the data size of a sum of data of one of a plurality of title catalogs is at or smaller than a capacity of the storing unit.

Moriyama et al teaches that the controller stores the catalog information (col. 14, lines 58-67) of the audio data which is to be played back prior to playing back the audio data (col. 22, lines 42-57). The catalog information stored includes a plurality of the title catalogs (fig. 12). While Moriyama et al does not explicitly state that the data size of one of the plurality of title catalogs is smaller than the capacity of the storing unit, the data size must be smaller since the device is able to store the plurality of title catalogs.

It would have been highly desirable to store the catalog information prior to playing back the audio data so that the catalog data is stored prior to playback thereby simplifying the reading process (otherwise the device would have simultaneously read the catalog data and audio data during playback).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to store the catalog information prior to playback in the device of Fukuda et al.

Regarding claim 13, Fukuda et al discloses a controller that controls playback of a title of the encoded catalog information corresponding to a selection of a user (col. 14, line 66 – col. 15, line 3) and the read encoded catalog playback information (col. 6, lines 46-58).

10. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda et al in view of Katayama and Moriyama et al.

Regarding claim 28, Fukuda et al discloses a controller which controls the decoding unit and the storage device so as to simultaneously decode the audio data to be played back and the catalog data corresponding to the audio data to be played back in accordance with the catalog playback information (col. 6, lines 46-58); wherein the controller distinguishes whether the catalog playback information exists in the storage medium by defining a region of the storage medium predetermined by a physical address designated as a space for storing the catalog playback information (150-151, fig. 1). The storage device that stores the catalog data of the audio data to be played back was disclosed by Moriyama et al, as discussed in the art rejection of claim 2. Please refer to the art rejection of claim 2.

#### Allowable Subject Matter

11. Claims 10 and 24 are allowed.
12. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **Conclusion**

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Polin Chieu whose telephone number is (703) 308-6070. The examiner can normally be reached on M-Th 8:00 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B. Christensen can be reached on (703) 308-9644. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Application/Control Number: 09/923,323  
Art Unit: 2615

Page 14

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

PC  
July 15, 2004

  
THAI TRAN  
PRIMARY EXAMINER